

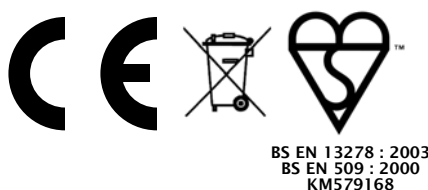


# installation and user instructions

All instructions must be handed to user for safekeeping

Revision C - 11/11

Country(s) of destination - GB/IE



**eko 3021**

**eko 3031**

**eko 3081**

**eko 3091**

**fan-flue fuel effect gas fire**



IN THE UK ALWAYS USE A GAS SAFE REGISTERED ENGINEER TO INSTALL, REPAIR OR SERVICE THIS APPLIANCE



Eko 3021 (Slimline)



Eko 3031 (Full Depth)



Eko 3081 (Full Depth)



Eko 3091 (Full Depth)

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## 1.0 IMPORTANT NOTES

- This appliance is an Inset Live Fuel Effect appliance which provides radiant warmth utilising the latest type burner technology.
- The fire is designed to suit various types of fireplaces and installation methods as detailed in this manual.
- The appliance must be installed by a competent person in accordance with Gas Safety (Installation and Use) Regulations 1998. It is strongly recommended that a GAS SAFE registered engineer be used for this purpose.
- Read all these instructions before commencing installation.
- This appliance must be installed in accordance with the rules in force and used only in a sufficiently ventilated space.
- The appliance is designed for installation on to a non-combustible hearth of at least 300mm depth.
- This appliance is factory set for operation on the gas type, and at the pressure stated on the appliance data plate.
- This appliance is available with a number of fuel effect options. These instructions cover all fuel effect options. See the relevant sections of these instructions for further details.
- In the event of gas leakage from the appliance, the gas supply must be turned off at the nearest isolating valve.
- The appliance must be installed in accordance with the following:
  - Manufacturers' Instructions.
  - The Building Regulations issued by the Department for Communities and Local Government, the Building Standards (Scotland) (Consolidation) Regulations issued by the Scottish Development Department.
  - Relevant British Standards insofar as the relevant areas are not covered by these instructions.
  - For Republic of Ireland, reference should be made to the current edition of IS813 (the relevant standards governing installation).
- Failure to comply with the above could lead to prosecution and deem the manufacturer's warranty invalid.
- The appliance is designed to fit various types of situations as described in sections 8.3 to 8.5.
- It should be noted that heaters create warm air currents. These currents move heat to wall surfaces next to the heater. Installing the heater next to vinyl or cloth wall coverings or operating the heater where impurities in the air (such as tobacco smoke, candle smoke etc.) exist, may cause the walls to become discoloured.
- On first light up of a new appliance, burning off of high temperature paint and lubricants may occur for the first few hours of operation. During this period some smoke may be emitted from the outlet grille, this should be no cause for concern. Accordingly, the room should be well ventilated with all windows and doors open during this period. During this period the appliance may cause smoke alarms to sound. If this happens, reset the alarms, but do not remove the batteries.
- **WARNING:** Due to the nature of this product the area around the top of the appliance gets very hot. Care should be taken when operating the appliance. The manufacturer of this appliance considers all surfaces as working surfaces with the exception of the control knob and ash pan door. Where young children, pets, the elderly or infirm are concerned, a suitable fireguard should be used.
- Consult ALL instructions before installation and use of this appliance. This appliance is free from any asbestos material.
- Refractories and fuel bed are constructed from ceramic fibre.
- The efficiency of the appliances covered by these instructions has been measured as specified in BS 13278:2003 and the results are;

Full depth models : 53%  
Slimline models : 52.5%

The gross calorific value of the fuel has been used for this efficiency calculation. The test data from which it has been calculated has been certified by GL Industrial Services (0087). The efficiency value may be used in the UK Government's Standard Assessment Procedure (SAP) for energy rating of dwellings.

## 2.0 APPLIANCE DATA

GB IE

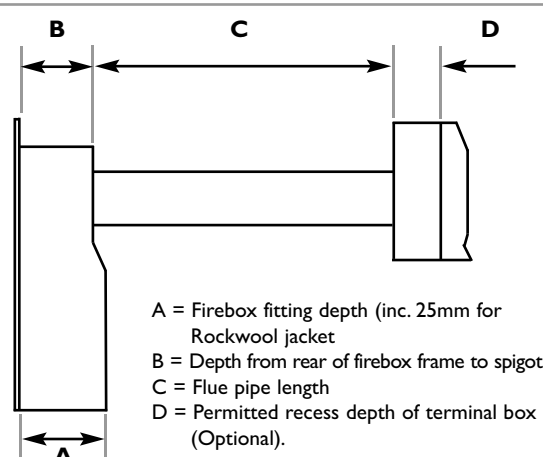
Model	Destination Country	Cat	Inlet/Operating Pressure ( $\pm 2.0$ mbar)				Max Energy Input (kW)		Min Energy Input (kW)	
Natural gas			G20	G25	G30	G31	Gross	Net	Gross	Net
Full Depth	GB - IE	12H	20	-	-	-	6.8	6.1	3.5	3.15
Slimline	GB - IE	12H	20	-	-	-	6.2	5.6	3.5	3.15

Specifications	Full Depth Models	Slimline Models
Main burner injector	Stereo size 79	Stereo size 78
Oxypilot (Natural Gas Models)	SIT 9081	SIT 9090
Gas Control (All Models)	Copreci 21400 Series	Copreci 21400 Series
Gas Inlet	8mm Inlet restrictor elbow	8mm Inlet restrictor elbow
Ignition	Piezo Spark	Piezo Spark
Spark Gap ( $\pm 1.0$ mm)	4.0mm	4.0mm
Electrical supply	230 V AC, 50 Hz	230 V AC, 50 Hz
Power consumption	0.3A Running, 0.4A Start-up	0.3A Running, 0.4A Start-up
Fuse rating	3A	3A
Approximate weight	Fire unit 20KG, Fan unit 12KG	Fire unit 20KG, Fan unit 12KG
Flue specification	Twin wall circular provided as part of appliance. No additional or alternative flue may be used. Outer flue tube diameter 120mm.	
Efficiency	53% Gross, 58.8% Net	52.5% Gross, 58.3% Net
Efficiency class	2	2

## 3.0 INSTALLATION REQUIREMENTS

Dimension	Full Depth Models	Slimline Models
'A'	205mm	150mm
'B'	170mm	125mm
'C' Minimum	100mm	100mm
'C' Maximum	600mm	600mm
'D'	90mm	90mm

Figure 1



### Internal

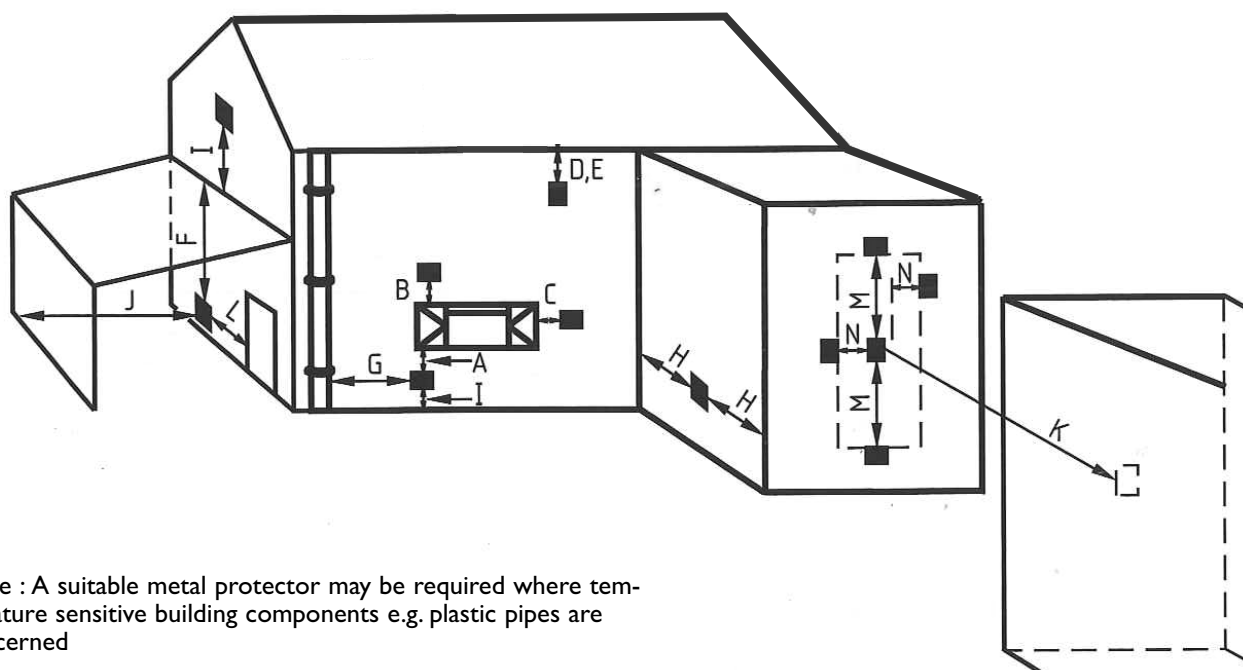
This appliance **MUST NOT** be installed into a room containing a bath or shower, or where steam may be present. It is not recommended that the appliance be installed in areas where it is likely to be directly exposed to persistent strong draughts, that may be generated by outside doors, windows, air vents, air conditioning units, extractor fans, ceiling fans etc. See section 4.1 for more information on ventilation. The firebox must be installed onto a suitable non-combustible insulating surface at least 12mm thick, covering the entire base area of the box. This appliance is suitable for use with a "lightweight" surround and back panel of 150°C minimum rating. A suitable gas supply and an electrical 3 Amp fixed fused spur are both required near the intended appliance site.

### External

Please refer to the diagram on the following page for more details of the most suitable site for the fan terminal. The terminal must be located so that the outlet is not obstructed in any way allowing poor disposal of combustion products. A safety cage should be fitted in place over the terminal to ensure compliance with Byelaws.

Terminals located in passageways between two properties, public footpaths or which might discharge over the same may be subject to local Byelaws on items such as minimum distances for projection. In these circumstances it is the installers responsibility to check that the location of the terminal does not infringe any Byelaws. If in any doubt about flue terminal location, especially with regards to garages and car ports then further advice should be sought from GAS SAFE or the manufacturer. Avoid locating the terminal in close proximity to combustible materials, such as plastic drainpipes and fences. If these are impossible to avoid, then a suitable metal deflector must be used if the flue gasses begin to heat the object. For minimum standard dimensions of clearance see section 4.0. Covered areas such as under car ports should be avoided but if no alternative is available the following notes should be adhered to; The covered area should have at least two open sides (i.e. a roof and ONE supporting wall). If more than one side is filled, then advice must be sought on the location's suitability. Any openings into dwellings such as doors, windows and air vents under the covered area must be at least 1200mm away from the terminal position. If the roof is constructed from plastic material, great care must be taken with the installation as there is no simple method of protecting this type of roof from heat build up.

Figure 2



Note : A suitable metal protector may be required where temperature sensitive building components e.g. plastic pipes are concerned

Minimum clearances are as follows;

Symbol	Location	Dimension
A <sup>a)</sup>	Directly below an opening, air brick, opening windows etc.	300mm
B <sup>a)</sup>	Above an opening, air brick, opening window etc.	300mm
C <sup>a)</sup>	Horizontally to an opening, air brick, opening window etc.	300mm
D	Below temperature sensitive building components e.g. plastic gutters, soil or drain pipes	75mm
E	Below eaves	200mm
F	Below balconies or car port roof	200mm
G	From a vertical soil or drain pipe	150mm
H <sup>b)</sup>	From an internal or external corner	200mm
I	Above ground, roof or balcony level	300mm
J	From a surface facing a terminal	600mm
K	From a terminal facing a terminal	1200mm
L	From an opening in the car port (e.g. door window) into the dwelling	1200mm
M	Vertically from a terminal on the same wall	1500mm
N	Horizontally from a terminal on the same wall	300mm

Notes:

- In addition, for temperature and structural reasons the terminal should not be closer than 150mm to an opening in the building fabric formed for the purpose of accommodating a built-in element such as a window frame.
- The reference to external corners does not apply to building protrusions not exceeding 450mm, such as disused chimneys on external walls.

Care should also be taken with the terminal location relative to nearby plants, grass, or trees as the gasses expelled may be hot enough to damage them. At least 1000mm clearance is recommended.

Note : Dimensions relate specifically to the exhaust outlet at the base of fan terminal box.

## 5.0 SITE REQUIREMENTS

GB IE

For aesthetic purposes it is essential that the hearth and infill plinth area are flat and level. The hearth and infill must also be square to the back panel. Failure to comply with this could cause the appliance to lean away from the fireplace resulting in an unsatisfactory installation.

The electrical earth to the property and all wiring must be carried out in accordance with IEE Wiring Regulations (including any Local Regulations). If you are unsure about this aspect, then professional advice should be sought. This appliance is suitable for use with a 230V~50Hz (AC) single phase (normal domestic) electrical supply. Connection to the mains supply should be made with the three core cable (green/yellow - earth, blue - neutral, brown - live) to a fixed fused spur with double pole insulation (minimum 3mm separation of poles) and fused at 3 amp. Take care not to pull or damage the internal wiring to the fan unit at any time during installation. Should the mains cable become damaged at any stage, it should only be replaced with the manufacturers supplied cable (part no. F930137). Failure to use a genuine spare could cause a hazard.

### **WARNING! THIS APPLIANCE MUST BE EARTHED.**

If a concealed gas supply is to be used, the supply pipe must be sleeved through walls and floors. If the fire is to be inset into the cavity leaf, only factory sleeved pipe should be used. For further details see relevant section. A separate isolation device must be incorporated into the incoming gas supply to facilitate servicing. No more than 1.5 metres of 8mm pipe should be used in the connection of the gas supply to the appliance, as more could result in an unacceptable drop in pressure.

This appliance must only be installed onto a non-combustible wall or surface. The fire requires a hearth with a non-combustible surface at least 12mm thick. The top surface of the hearth must be at least 50mm above floor level, or be surrounded by a raised edge or fixed fender of at least 50mm high. The non-combustible hearth must extend a minimum of 300mm in front of, and 150mm either side of the live part of the appliance. The hearth must therefore be a minimum of 680mm wide.

The appliance must be installed by one of the following methods;

- 1 - Fitment against an existing inner house wall with a suitably constructed fireplace and/or false chimney breast to enclose the depth of the fire.
- 2 - Insertion into a purpose made opening in the inner leaf of a cavity wall or disused fireplace opening with the use of a suitable fireplace surround etc. **Note: The appliance must not bridge the cavity - any overhang being kept to a minimum, and the Installation instructions must be adhered to. Building Control requirements may vary in some areas, enquiries should be made accordingly.**
- 3 - Installation into a timber framed dwelling using the clearances to combustible materials shown in the relevant section. Building Control requirements vary in some areas, enquiries should be made accordingly.

An unprotected combustible shelf may be fitted above the appliance, provided it complies with the minimum dimensions stated below. Protective materials can be used to deflect heat from shelves that are too low.

<b>Maximum depth of shelf</b>	<b>Minimum distance from finished hearth surface to underside of shelf</b>
100mm	745mm
150mm	845mm
203mm	895mm

A non-combustible shelf may be fitted to within 10mm of the top edge of the fireframe. Combustible materials, such as wood, may be fitted to within 100mm of either side of the frame of the firebox providing it projects no further forward than 100mm. As with all heating appliances, decorations, soft furnishings and wall coverings (such as blown vinyl, flock and embossed paper) may discolour or scorch if positioned too close to the fire. If the appliance is fitted to a dry-lined wall, the gap between the plasterboard and blocks must be sealed with non-combustible material and any unplastered board replaced with superlux or other non-combustible material if in direct contact with the appliance.

## 6.0 VENTILATION

No purpose provided ventilation is normally required with this appliance. However, the ventilation requirements of other gas appliances in the same room or space should be taken into consideration. A spillage test should be carried out as described in the relevant section with the doors and windows both open and closed, and with any extractor fan running on full. Where fitted, ventilation must comply with the requirements of BS 5440 part 2. Vents directly underneath or within the immediate vicinity of appliances **must not** be used as they may adversely affect ODS pilot operation.

**Note: For Republic of Ireland see IS813, ICP3 and IS327 and any other rules in force.**

## 7.0 UNPACKING THE APPLIANCE

Stand the carton right way up, cut the strapping bands and remove the top end cap.

Read all the instructions before continuing to unpack or install this appliance. Remove the box containing the fire front, and the bag containing the ceramics.

Remove the cardboard packing pieces, and any bags containing other fittings or parts. When all loose parts have been removed, the outer sleeve may be lifted off to reveal the appliance. Check that the components supplied correlate with the checklist given in section 7.1. Please dispose of the packaging materials at your local recycling centre.

QUANTITY	DESCRIPTION
1	Firebox and burner tray assembly
1	Decorative front and frame assembly (depending on model)
1	Moulded ceramic fibre combustion matrix
1	Front ceramic strip (full depth versions only)
1	Bag of 16 moulded ceramic coals or pebbles (full depth models only)
1	Bag of 11 moulded coals (Slimline coal models only)
1	Bag of 15 moulded pebbles (Slimline pebble models only)
1	Set of manufacturers instructions
1	Bag of fixings (10 wallplugs, 10 No.8 x 40 screws, 4 No.8 x 0.5 screws), 3 lengths of sealing strip
3	Ceramic radiant panels (full depth models only)
1	Ceramic radiant panel (slimline models only)
1	Pair of small ceramic side cheeks (Slimline pebble models only)
2	'L' brackets (full depth models only)
1	Fan terminal assembly including fan box trim and fan box cover
1	Twin-walled tubular flue
1	Mineral wool jacket
1	Terminal guard cage

## 8.0 PREPARING FOR INSTALLATION

Remove the fire tray from the firebox by removing the two securing screws in the front legs of the tray and rear mounted transit screws, and invert the tray. Carefully unplug the safety solenoid on the tray from the control box by squeezing the clip on the three way connector and easing apart. Place the tray safely to one side along with the fuel bed components, firefront and decorative frame.

**Full depth models only :** The three radiant panels may now be fitted inside the firebox. Select the plain or patterned side of the panels and insert as follows; Lay the firebox on it's back. Lay the tapered panel onto the rear face of the firebox. The side panels should be fitted by inserting their front edges into the pre-fitted retaining brackets on the front face of the firebox. Gently align the side panels with the sides of the firebox, over the back panel already in place as shown in figure 3. Make sure that the side panels are pushed **up** firmly to the roof of the firebox, and **back** firmly to retain the rear panel. Make small adjustments to line up the mortar lines if required. Clamp the side panel using the 'L' shaped brackets and screws provided as shown in figure 4. The screws should locate into the holes in the sides of the firebox.

**All models :** Apply the self adhesive sealing strip to the rear perimeter of the firebox frame so as not to be visible. This will eventually seal the firebox to the fireplace back panel. Place the fire to one side whilst the site is prepared for flue installation. As shown in figure 5, mark the vertical centreline of the desired location of the appliance after first checking for clearances to pipes and cables in the wall, and also the terminal position outside.

**Note :** The vertical centreline of the pilot hole will be 500mm from the floor PLUS the thickness of the hearth you are using. This dimension is obviously FROM the hearth top surface if it is already fitted. Mark the position of the 30mm cable hole in relation to the flue centreline. Using a suitably long masonry bit, drill through both leaves of the cavity wall. Check outside that the clearances from the hole are adequate for installation to proceed. Check all dimensions with the diagram in the relevant section. Now drill the 30mm cable hole in the wall.

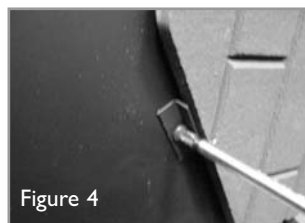


Figure 4

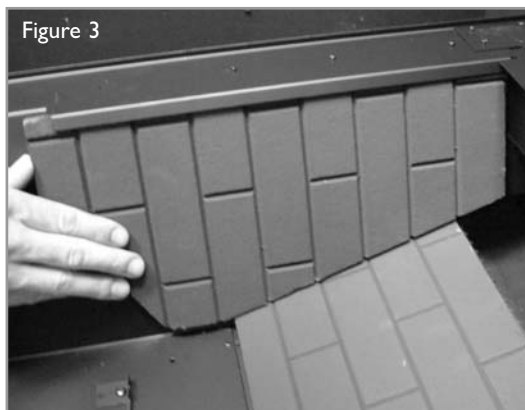


Figure 3

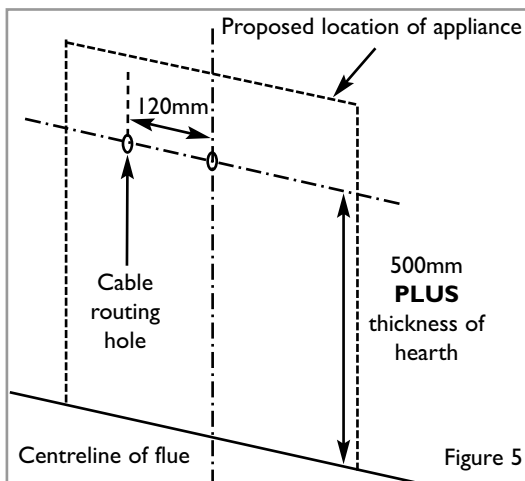


Figure 5

## 8.1 OUTER WALL APERTURE

From the outside of the property, open up the pilot hole in the external leaf of the cavity to the required size.

If the fan terminal is to be mounted directly onto the outside wall, the hole should be opened up to a 125mm diameter aperture centred around the pilot hole.

If the fan terminal is to be recessed into the outer leaf, the hole should be opened up to the dimensions given in figure 6.

Clear all the brick rubble and debris that may have fallen into the cavity. If the cavity wall insulation is obstructing your view of the inner leaf then clear this back.

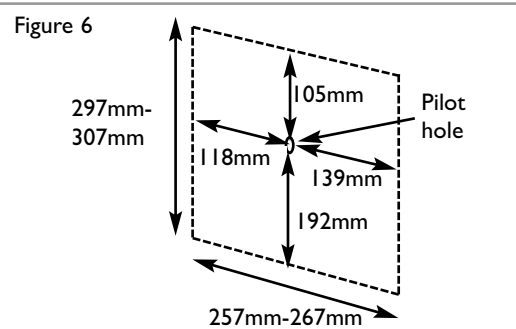


Figure 6

## 8.2 GAS SUPPLY ROUTES

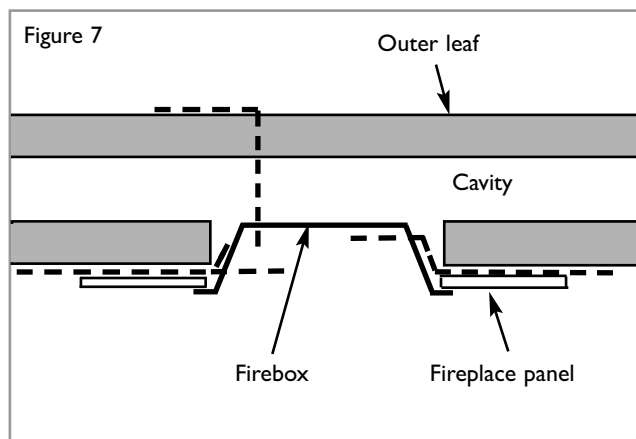
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The gas supply may enter the appliance across the hearth or through the 'knock outs' provided in the rear of the firebox. Gas pipes should not be buried or routed through walls without being protected by conduit or sleeving. An isolation tap must be included in the gas connection pipe to facilitate servicing.

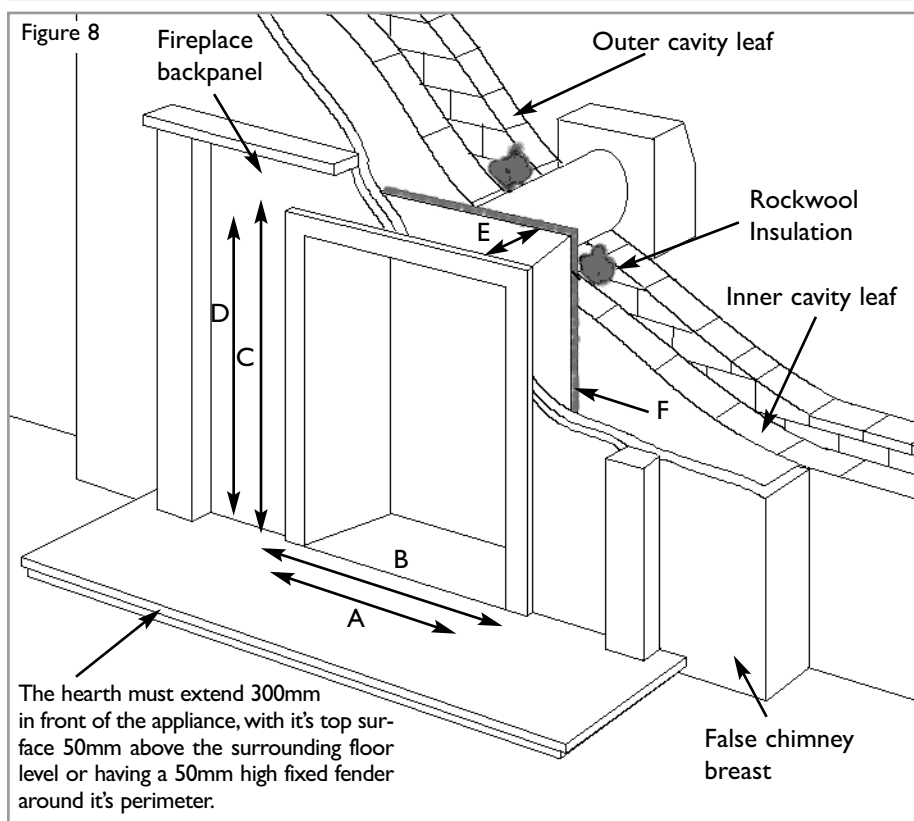
**Note:** Any fittings used underneath the appliance must be rated to 80°C and must not come into contact with the underside of the burner unit

For INSTALLATION METHOD 1, the gas supply can be run in the conventional manner taking due account of rules and regulations.

For INSTALLATION METHOD 2, use only factory sleeved pipe in a continuous unjoined length in the cavity of the wall and area which communicates with the cavity. Ensure a good seal where the pipe enters through the appliance grommet. This is a permitted gas supply routing.



## 8.3 INSTALLATION METHOD I



A	Opening width
B	Overall width
C	Overall height (excluding hearth)
D	Opening height: (excluding hearth):
E	Recessed depth of fire
F	Space allowed for Rockwool jacket:

Model Dim.	Full depth models	Slimline models
A Min.	375mm	380mm
A Max.	460mm	450mm
B	480mm	480mm
C	590mm	590mm
D Min.	565mm	540mm
D Max.	580mm	580mm
E	180mm	125mm
F	25mm	25mm

**This method requires minimal modification to the property's wall and is achieved utilising either an extended fire surround or by constructing a shallow false chimney breast of a minimum 180mm deep. See diagram for further dimensions.**

Centring on the pilot hole already drilled, create a hole from inside the property 125mm diameter. If the property has loose fill cavity wall insulation fitted, it will be necessary to seal the wall cavity where the flue opening is formed to prevent insulation material coming into contact with hot surfaces of the fire and its components. The recommended method is to pack a depth of 50-100mm of Rockwool or a similar non-combustible insulation material into the cavity.

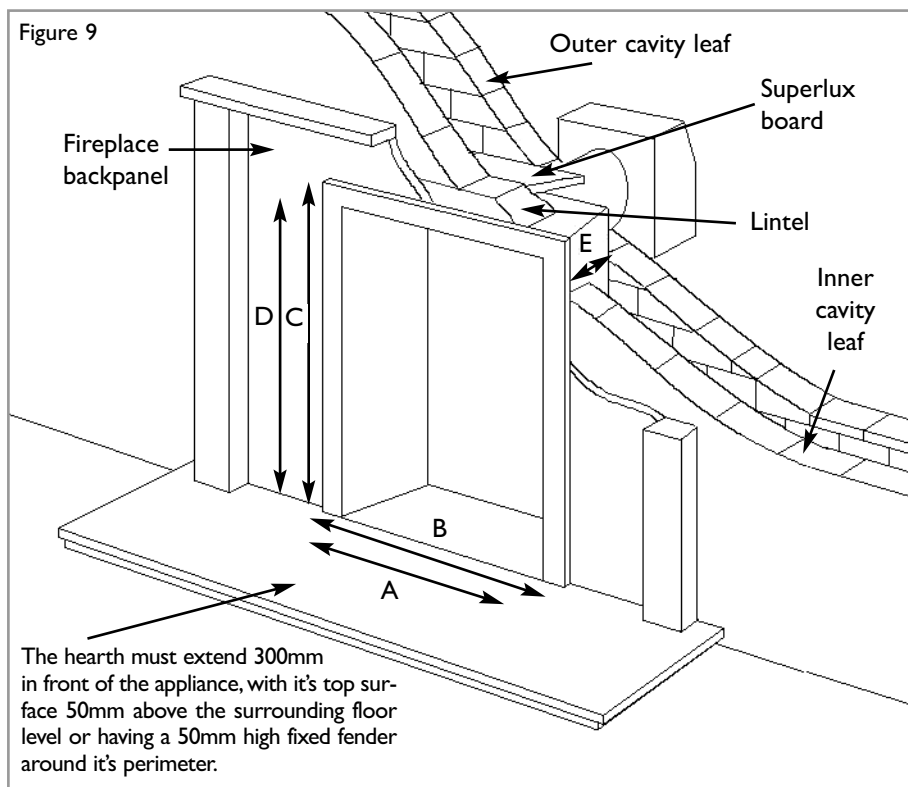
Where the property does not have existing cavity wall insulation, it is still recommended that a space 50-100mm into the cavity is packed with Rockwool or similar material, to prevent any future installation of cavity wall insulation from coming into contact with hot areas of the appliance.

At this point the false chimney breast or fire surround should be installed.

**Note:** When constructing the stud partition, all uninsulated, combustible material must be kept a minimum of 75mm away from the fireplace. Combustible materials closer than 75mm **MUST** be protected with a minimum of 25mm insulation material.



Figure 9



A	Opening width
B	Overall width
C	Overall height (excluding hearth)
D	Opening height: (excluding hearth):
E	Recessed depth of fire

Model Dim.	Full depth models	Slimline models
A Min.	375mm	380mm
A Max.	460mm	450mm
B	480mm	480mm
C	590mm	590mm
D Min.	565mm	540mm
D Max.	580mm	580mm
E	180mm	125mm

This method allows for installation of the appliance with the rear part of its firebox recessed into the inner leaf of the cavity wall. This will enable a standard fireplace to be flush fitted to the wall and the appliance will then be fitted flush into the fireplace. The structural integrity of the wall must be maintained.

Check on the type of cavity insulation used, and if it is of the granular type then take suitable precautions when opening up the wall not to allow excessive loss of insulation material from the cavity. Packing the cavity with Rockwool should help hold back loose fill insulation material. Unless lime and mortar has been used, it will be necessary to drill four holes with a masonry drill, and then use a mechanical cutter (Sharksaw) to cut out the correct size of 'slot' required for the chosen lintel. Obtain a lintel 750mm long x 75mm deep x thickness of the inner leaf. We would suggest either a pre-cast concrete or steel lintel; Catnic CN52 or CN46 depending on thickness. Typical inner leaf weights when sizing a lintel over a 450mm wide opening are 90kg for 100mm blockwork and 120kg for 125mm blockwork.

Plan to minimise disruption to occupants and protect any other parts of the building against dust infiltration.

Areas that are opened up will need to be protected against rain or snow during the work and if there is a risk of frost, replacement brickwork will require protection until mortars have hardened.

Set out where possible centrally beneath a block join as shown. Use a drill for guide holes, and a 'Sharksaw' or angle grinder to form an opening to suit the lintel.

The lintel should be inserted and securely slate pinned, leaving the wall above safe and firm.

**Note: Always bed on mortar, DO NOT dry bed.** Remove all masonry from below the lintel, and clear debris from the cavity. The top of the exposed cavity must be sealed with Superlux board or a similar non-combustible material. The board should be fixed at an angle, lower at the back, so as to direct any moisture coming down to the outside wall. This board should be fixed with screws, Unibond, or a similar adhesive. It is important to fit this board or a cavity tray to protect the property and the appliance from drips of water. The sides of the opening where the cavity is exposed should be packed with Rockwool or similar non-combustible material to a minimum depth of 50mm. The Rockwool packing must extend from the base of the opening to the Superlux board. The non-combustible hearth should now be formed or secured in place. It is essential the mineral wool jacket be fitted to the rear of the appliance to prevent condensation and to insulate the appliance firebox from the cold air of the cavity.

**Note: Neither the appliance firebox nor the mineral wool jacket should bridge the cavity.**  
Consult your local Building Control Department for any additional construction requirements or further advice.

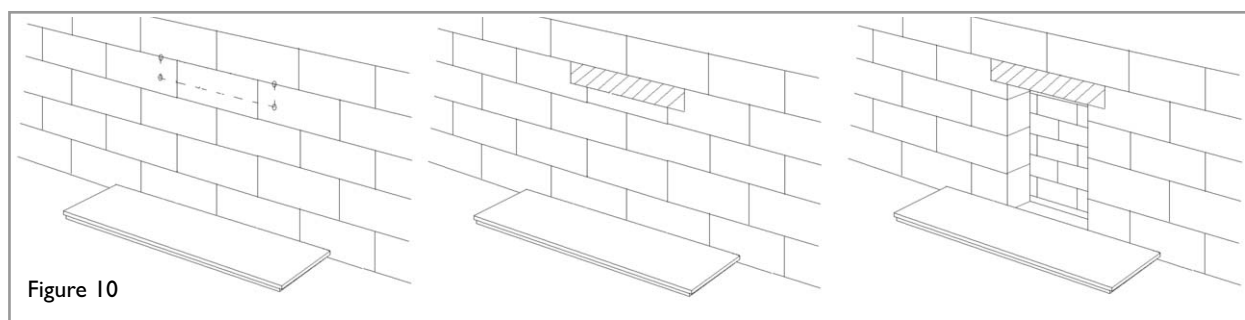
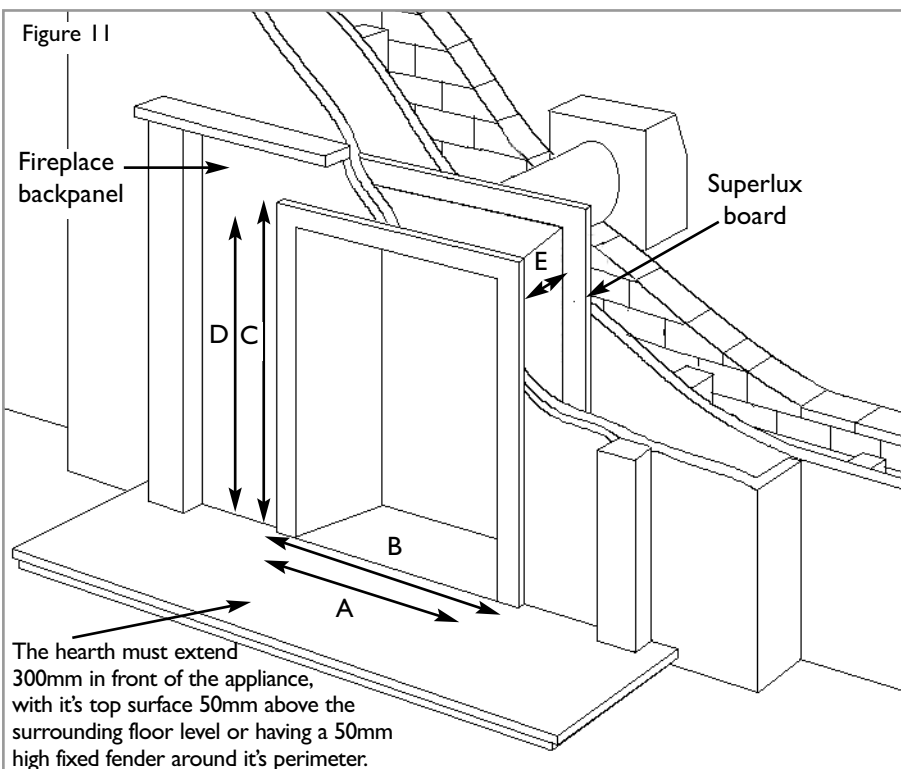


Figure 10



A	Opening width
B	Overall width
C	Overall height (excluding hearth)
D	Opening height (excluding hearth):
E	Recessed depth of fire

Model Dim.	Full depth models	Slimline models
A Min.	375mm	380mm
A Max.	460mm	450mm
B	480mm	480mm
C	590mm	590mm
D Min.	565mm	540mm
D Max.	580mm	580mm
E	180mm	125mm

## Installation into timber framed dwellings

Where removal of any part of the inner timber leaf of the wall is involved, the structural integrity of the wall must be maintained and the advice of your local Building Control Department should be sought. If the property is under any N.H.B.C. cover, it is advised that their advice on this modification should also be sought.

Either of the two preceding methods of installation may be adapted for use in timber framed buildings, providing extra care is taken to prevent combustible materials from contact with hot surfaces.

The appliance must be installed in accordance with British Gas documents DM2 and DM3 or the Institute of Gas Engineers published procedure IGE/UP/7. Special attention must be paid to the location of the studwork frames of the inner leaf and the appliance positioned accordingly. Wires and pipes that run within the inner timber leaf must also be located and taken into account when positioning the appliance.

## Installation using rebated fire surround or false chimney breast.

When using this method of installation the following amendments should be incorporated; 25mm clearance must be allowed from the appliance firebox to any insulated combustibles.

75mm clearance must be allowed to any unprotected combustibles. 50mm minimum thickness of insulation should be provided around flue pipe and gather hood. Where the flue pipe passes through the inner leaf, a hole 100mm larger than the flue should be cut to allow 50mm air gap around the entire flue circumference.

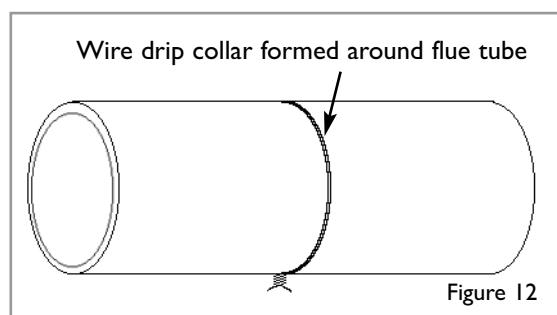
The vapour barrier on the back of the inner leaf should be cut and carefully fixed to prevent any ingress of damp into the plasterboard layer. A layer of insulation will need to be provided to insulate the surface of the inner wall from the heat effect of the flue. It may be advantageous to use a sheet of Superlux board for this purpose.

## Installation by setting the appliance into the inner leaf of wall.

When setting the appliance into the inner wall find a suitable position between the wall panel frames and carefully open up a hole to the dimensions given in the relevant section, paying careful attention to securing the damp proof membrane back into position. A drip collar of galvanised or stainless steel should be formed with the twisted joint on the underside of the flue to disperse drips - see figure 12.

An air gap of 75mm between all hot surfaces and the surrounding wall should be allowed, if protective insulation is used this may be reduced to 25mm clearance. The exposed cavity should be sealed off using Superlux or a similar non-combustible board, see below.

**Note: Neither the appliance firebox or the mineral wool insulation should overhang the cavity space.**



## 8.6 FLUE PREPARATION

GB IE

When all the preparation work has been completed for whichever method of installation has been chosen, and with the fire surround fitted, take the appliance and slide the round flue section over the spigot on the rear of the fire. Protect any decorative hearth with a dust sheet or similar, place the appliance in position with the flue section protruding through the wall(s) to the outside. Make sure the firebox is fully pushed home before marking two fixing holes in the base of the firebox. Outside the property, mark a line on the flue tube level with the outer surface of the wall, where it protrudes through.

Remove the firebox from the location and slide off the flue section. If the fan terminal is to be mounted directly on the the outside wall, cut the flue tube to length along the marked line. **If the terminal is to be recessed into the outer wall, a second line should be marked 90mm back towards the appliance.** The flue tube should then carefully be cut to length along the relevant line. Do not remove the ceramic insulation. File off any rough edges and slide back on to the appliance spigot ensuring the 'O' ring remains seated in its channel. Slide the Rockwool jacket into place over the flue section, this may be secured with aluminium tape.

With a suitable drill bit, make the two previously marked holes in the base of the firebox, drilling down through into the non-combustible hearth. Fit two wall plugs into the holes.

## 8.7 FIREBOX AND BURNER UNIT

The mains electrical supply cable exits from the rear of the appliance and the FIXED FUSED SPUR (fused at 3 Amp) should be arranged to allow easy connection.

Stand the appliance in front of the opening and feed the fan wiring harness through the hole drilled in the wall. You may find this easier if a short length of plastic conduit is first fitted to the hole. The cable must run outside of the insulating jacket, and be arranged so that it does not touch any hot surfaces. Feed the mains cable through to the location of the fixed fused spur. Depending on the location of the 8mm gas supply, feed through the back of the firebox and fit the grommet seal (if applicable). Now carefully slide the appliance back into position and secure into place using the two previously drilled holes. Ensure the flue unit has passed correctly through the wall.

**Note: If using an over hearth gas supply, the route of the pipe should be located through the purpose provided cutouts (if applicable) on the decorative firefront supplied with the appliance.**

Place the burner tray near to the firebox and connect the three-way plug from the control box to the safety solenoid mounted on the burner.

## 8.8 FITTING THE FAN TERMINAL

The external fan terminal can now be fitted. This comprises three parts, the wall fan box section, the cover and the trim frame (only used for recessed mounting). At this point, the trim must be fitted to the fan box unit if the terminal is to be recessed into the wall. Remove the four self tapping screws from the sides of the fan box, and slide the trim frame over the box with the fixing flanges facing into the wall. Secure with the four screws and proceed to fit the terminal as described below.

Offer up the fan unit and feed the connecting cable through the entry hole in the wall plate. It may be advantageous to remove the rubber grommet in the entry hole to aid insertion of the wires and refit afterwards. Run the connector through the entry hole, then feed them through the grommet, before finally refitting the grommet to the entry hole.

**Note: The grommet MUST be refitted in order to prevent damage to the fan wiring harness.**

### Installing the fan terminal by surface mounting on the outside wall

Slide the fan unit on to the previously installed flue pipe. Mark the four fixing screw positions on the wall, and drill the 5mm securing holes into the brickwork. Affix the fan terminal to the wall with the wall plugs and screws provided. A bead of silicone weather sealant, or similar suitable sealant should be applied along the top edge, and down the two sides of the terminal where it meets the wall, to prevent the ingress of water as shown in figure 13. Any excess sealant should be wiped away.

### Fitting the fan terminal by recessing into the outer wall

If already fitted, remove the four long M4 screws from the top and bottom of the fan terminal. Fit the terminal into the wall opening previously prepared, ensuring the flue tube seats correctly over the terminal spigot. When correctly fitted, insert the four screws into the threaded inserts fitted to the inside of the top and bottom of the terminal. Using a suitable screwdriver, continue to wind in the four screws from the inside of the box until the fan terminal is held securely in the opening, as shown in figure 14. Alternatively, four holes may be marked in the sides of the fan terminal, and these drilled through into the brick work. The terminal can then be secured with wall plugs and screws. Apply a bead of silicone weather sealant, or similar suitable sealant around the top and side edges of the frame to provide a good seal to the wall, eliminating water ingress.

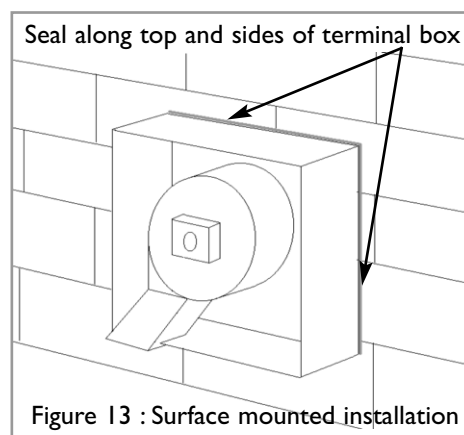


Figure 13 : Surface mounted installation

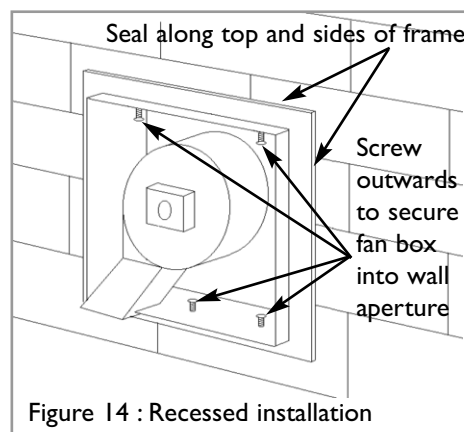


Figure 14 : Recessed installation

## 8.9 GAS CONNECTION

GB IE

**Note :** A separate isolation device must be incorporated into the incoming gas supply to facilitate servicing.

Temporarily fit the burner tray and ensure a suitable gas route can be achieved. If using an across hearth connection, ensure the decorative fireframe and firefront will clear the supply route. Place the burner tray into the firebox making sure that the rear lugs locate properly on to the ledge in the firebox. Fit the two securing screws through the tray legs to secure the assembly.

If removed re-fit the data/control plate to the tray using the two screws provided. Ensure that the control knob can be pushed fully in and does not touch the plate.

Purge the gas supply thoroughly to remove air and dirt/debris **BEFORE** connection. Connect the gas supply and tighten the gas connections. Turn on and test the gas supply up to the fire for any leaks, in accordance with current edition of BS6891.

**WARNING : DO NOT USE AEROSOL TYPE LEAK DETECTOR AS THIS CAN DAMAGE THE ELECTRONICS.**

When the appliance is first used, protective oils coating the firebox may burn off. It is advisable to ventilate the room during this period for at least one hour.

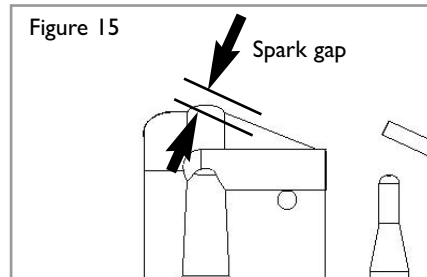
## 8.10 SPARK GAP

The spark gap (shown in figure 15) between the spark electrode and the thermocouple should be 3.5 - 4.5mm to produce a good spark. There should be no need to adjust this.

### Spark Failure

If under any circumstances the electric spark fails, the pilot may be lit manually by proceeding with the ignition sequence as previously described, and after turning the control knob through the spark position, the knob should be held in and the pilot lit with a taper.

Figure 15



## 9.0 FUEL BED LAYOUT

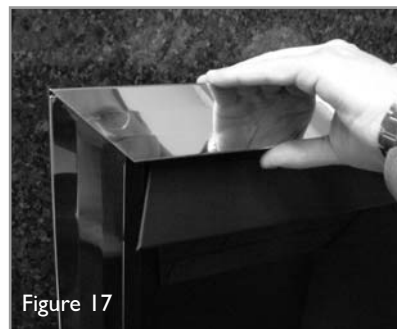
Please refer to section 6.0 and 6.1 of the user instructions.

## 10.0 FITTING THE DECORATIVE FRAME AND FRONT

The appliance is supplied with a decorative frame in a variety of finishes. A plastic protective film may be applied to the outside of the frame and should be removed before fitting the trim. The frame is held onto the firebox by one of three methods;

### Magnetic trims

Place the magnetic pieces supplied to the steel backing plates on the appliance firebox frame as shown in figure 16. Place the decorative trim in position on top of the magnets.



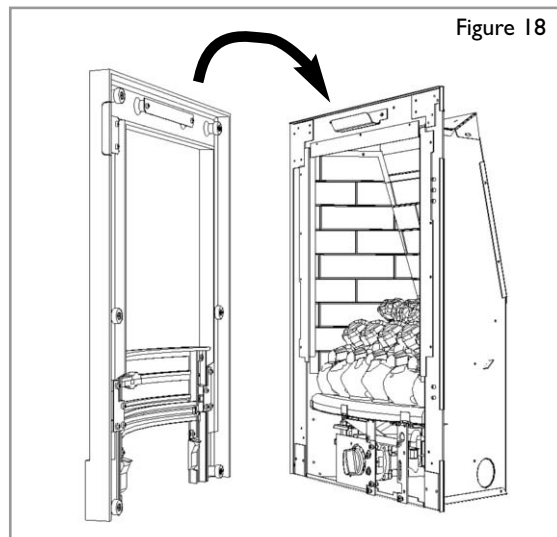
### Clip-on trims

If not pre-fitted, the clip-on frame pieces should be hooked over the outer edges of the fireframe (figure 17), and pushed firmly home. The sides should be fixed first, followed by the top bar, which overlaps the sides. Push firmly home.

**IMPORTANT : Due to the possibility of sharp edges, care should be taken when handling the three-piece frame components. The use of protective gloves is strongly recommended.**

### Cast frame (hook-on)

The appliance is supplied with a cast decorative frame. To attach the frame to the firebox, simply hook on at the top as shown in figure 18. The frame incorporates magnets at the bottom to hold it in position. Place the frame into position in front of the fire and slide the ashpan door into place.



**Do not use any other firefront other than the one supplied with this appliance. The firefront shown in these instructions may differ from the one supplied with the appliance.**

## 11.0 OPERATING THE APPLIANCE

GB IE

Turn on the power supply and momentarily press the ON switch on the control box located to the right of the control knob. The fan should operate with the warning light illuminated. Almost immediately the fan will slow down to operating speed and a click may be heard as the safety solenoid opens allowing gas to the burner unit. The warning light on the control box should extinguish.

The pilot is visible through the left hand side of ceramic fuel matrix. When cold, the coals or pebbles may be rotated for good viewing. The fire features a 'twin spark' ignition system to aid lighting. Push the control knob in fully and turn anti-clockwise through both of the SPARK positions, keeping fully depressed, hold there for a few seconds. If the fire has not been used for some time, hold the knob in this position for longer, to allow any air in the pipes to be purged.

Continue turning anti-clockwise through the spark clicks to the nine o'clock position, ensuring the pilot has lit. If not, return the knob clockwise, and repeat.

When the pilot lights after one of the two sparks, keep the knob depressed in the nine o'clock position for approximately ten seconds. Now release the knob and the pilot should stay alight. If the pilot is extinguished during use, wait three minutes before repeating the ignition procedure.

To achieve the HIGH setting, push the control knob in slightly and continue turning anti-clockwise to the high position. The main burner should light after a few seconds. To decrease the setting to LOW, push the knob in slightly and turn the control knob clockwise to the low setting. To turn to the pilot only position from the HIGH or LOW positions, press the control knob in, and return to the nine o'clock position and release. To turn the fire OFF, keep the knob pressed in, return to the off position and release. Press the OFF button on the control box to switch off the fan.

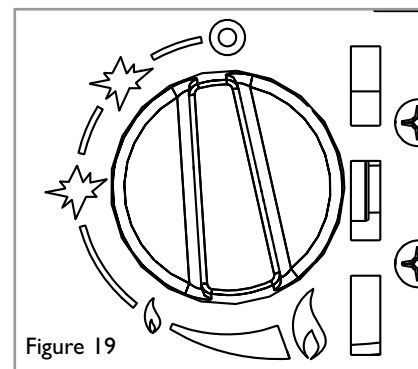


Figure 19

## 12.0 OPERATING PRESSURE

Release the pressure test point screw, and attach a pressure gauge. Light the fire on the HIGH setting. To commission the appliance, the operating pressure must be in accordance with the figures stated in section 2.0 of these instructions. The fire is factory set to achieve the correct flow rates at the specified inlet pressure.

Any significant variation in the inlet pressure could indicate a supply problem. If the inlet pressure is too high, the gas supply meter/governor may be set incorrectly.

This should be checked with the fire running and if necessary reset by the gas supplier. If the inlet pressure is too low, then check the meter/governor pressure with the appliance running. If this is less than the inlet pressure stated in section 2.0 of these instructions it will need to be reset by the gas supplier. If the inlet pressure is too low, but the meter/governor pressure is acceptable, then a problem in the supply pipework is to be suspected.

Upon satisfactory checking of the inlet pressure, turn the fire off, disconnect the pressure gauge and refit the test point screw. Light the fire and check for gas soundness. In the event that the inlet pressure is not in accordance with the figures stated in the data section of these instructions, the appliance must not be commissioned, and the problem investigated and rectified.

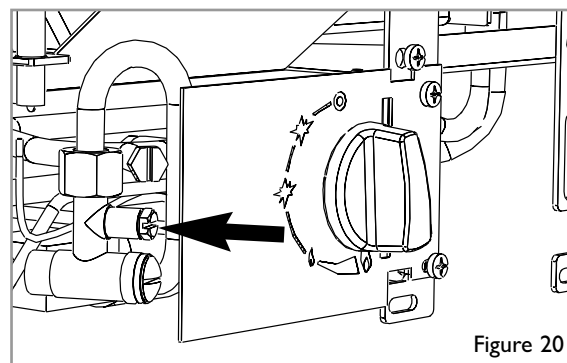


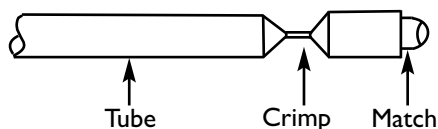
Figure 20

## 13.0 TESTING FOR SPILLAGE

Close all doors and windows to the room containing the appliance. Let the fire run on HIGH for five minutes. Take a smoke match, light it, and using a smoke match tube, hold it at the top edge of the fire opening, 25mm down and 25mm in. Starting 50mm in from either side, run the smoke match across the opening. All the smoke should be drawn into the upper firebox. Any smoke returning into the room indicates that spillage is occurring. If the initial test fails, run the fire for a further 10 minutes and repeat the test. When the test has been completed satisfactorily, repeat with any extractor fans in the premises running on the highest setting, and any communicating doors open. Finally, repeat with all doors open.

NOTE: If spillage is still indicated after undertaking all of the above, there may be a problem with the flue and/or fan box setup,

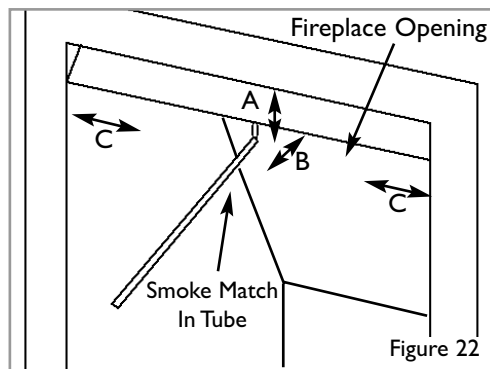
Figure 21 : Cross section of smoke match tube



Make a smoke match tube from 10mm diameter tube. Seal off one end and crimp the tube to prevent the smoke match from sliding down inside.

Spillage test - Figure 22

- A. 25mm down from top of opening
- B. 25mm in from front of opening.
- C. Disregard outer 50mm either side of fireplace opening



or insufficient ventilation is present. If the problem cannot be rectified immediately, then expert advice should be sought. Inform the user, disconnect the fire, and attach an explanatory label.

**WARNING : DO NOT allow the fire to be used until the test is satisfactorily passed.**

All instructions must be handed to the user for safekeeping. Show the customer how to light and control the fire.

## 14.0 BRIEFING THE CUSTOMER

GB IE

After commissioning the appliance, the customer should be instructed on the safe use of the appliance and the need for regular servicing. Frequency of service depends on usage, but **MUST** be carried out by a GAS SAFE engineer at least once annually. Advise that **except for cast iron parts** (3081 and 3091 models) cleaning of the fire may be achieved when the fire is cold using a damp cloth and mild detergent on most surfaces.

Scratched and other superficial damage to the mat black paintwork of the appliance can be covered with matching heatproof spray. Use only the manufacturers' recommended spray paint. Paint only when the fire is OFF and cold. Always mask off the surrounding area to prevent contamination with overspray. Ventilate the room during the use of the spray. **DO NOT** attempt to spray paint the coals or ceramics, or wash them in water.

Advise that the fire will emit a "newness" smell for a time after initial commissioning and that extra ventilation may be needed during this time. Advise that the fire is fitted with a spillage safety device (O.D.S.). If the fire shuts down, this system may be in operation. If spillage is suspected, **SWITCH APPLIANCE OFF** and call in the installer to investigate any problems.

## 15.0 SERVICING

Isolate the fire from the gas supply. Ensure that the fire is fully cold before attempting service. A suggested procedure for servicing is detailed below.

1. Lay out the dust sheet and tools.
2. Disconnect electrical supply and isolate gas supply.
3. Carefully remove the ceramic components and place safely to one side.
4. Remove the decorative frame and/or firefront and check frame top for discolouration and signs of spillage.
5. Disconnect the gas supply pipe, and remove the two securing screws in the burner legs.
6. Disconnect the three way mox connector between the solenoid and control box and remove the burner unit.
7. Strip off the burner pipes and clean thoroughly.
8. Clean out the injector and pilot assembly. The pilot injector cannot be removed. **DO NOT** damage pilot injector.
9. Remove the two securing screws and lift away control box heatshield.
10. Check electrical connections to the control box are sound, and earth screw is fully tightened.
11. Re-assemble and re-fit the burner tray, making sure to reconnect the three-way plug.
12. Re-fit the decorative frame and/or firefront.
13. Re fit and replace the ceramics, using genuine spares where necessary.
14. Turn on the gas supply, and leak test in accordance with current edition of BS6891.
15. Dismantle the fan terminal unit and clean thoroughly, especially the sensing pipes and fan blades
16. Check the flue tube is free from obstruction and/or air leaks and sealing rings are correctly fitted.
17. Re-fit fan terminal, and reconnect the power supply
18. Check any purpose provided ventilation is un-obstructed
19. Check fan for operation and electrical soundness.
20. Switch **ON** the fire and test for spillage in accordance with section 13.0 of these instructions.
21. Check operating pressure and safe operation of the appliance.

For specific servicing instructions, see the relevant sections.

## 15.1 CLEANING THE CERAMICS

Remove the firefront and place to one side. Remove the ceramic components. Gently clean in the open air. Be careful not to create dust from the coals. Where necessary replace damaged components with genuine spares. Seal scrap components in plastic bags and dispose of at proper refuse sites as directed. Re-fit the ceramic components carefully in accordance with section 5.0 of the user instructions.

## 15.2 DISMANTLING THE BURNER UNIT

Remove the tray as previously described. The pilot unit can be removed by undoing the tubing nut, the thermocouple nut on the rear of the valve, HT lead, and the two securing screws, and lifting away. Remove the tubing nut from the valve end of the pilot pipe, and blow through to dislodge any debris. Clean the exterior of the pilot assembly with a soft brush and blow through the flame ports on the pilot head. Check the aeration holes are free from lint or dirt. The pilot assembly is a non-serviceable item, and should not be taken apart, other than the removal of the lint guard. The aeration hole must be absolutely clear internally for proper operation. A thoroughly cleaned (inside and out) oxy-pilot will cure a wide range of ignition faults. The injector can be removed from the burner assembly with two spanners to make cleaning easier. Remove the two tubing nuts on the ends of the gas pipe to the injector elbow. The injector pipe can now be checked for debris. Remove the nut retaining the injector elbow. Blow through the elbow to remove any debris.

The valve is not field serviceable, apart from the pilot filter. Remove the control knob by pulling it forwards, then remove the largest of the three screws on the face of the valve. Slide the filter out and clean away any debris that may have accumulated. The filter element should also be blown clean. This component should not require replacement, however if signs of deterioration are evident then a genuine spare must be used. If a large amount of debris is present in the filter then the pipework and control should be thoroughly cleaned before re-assembly.

## 15.3 FAN ASSEMBLY

GB IE

Disconnect the electrical supply, and remove the fan terminal cover. Check all components for signs of deterioration paying attention to the wiring, and ensuring all electrical connections are good.

Remove the terminal from the wall and check the flue tube is in the correct position. Check the flue is free from obstruction along its entire length.

Remove the fan unit from the terminal box (remove three screws shown in figure 23). Clean the fan blades carefully with a clean dry brush to remove any debris, dust or soot that may have accumulated in use. Try to avoid touching the actual fan blades with your fingers as the fan wheels are very finely balanced and disturbing the fan wheel too much can upset this balance and result in a noisy/broken fan.

Should the need arise to check the resistance across the motor coil of the fan, then this should be  $51\Omega \pm 10\%$ .

Clean outlet and airflow sensing tubes (located inside the fan outlet as shown in figure 24 - now accessible with fan removed) with a suitable brush. Remove the silicone hoses and clean out any debris, insects, or moisture that may be present.

Ensure the hoses are re-connected correctly as shown in figures 25 and 26. Small cable ties (as shown in figure 27) must be used to ensure a tight seal between the hoses and the hose glands on the pressure switch.

Should it be necessary to remove the wires from the pressure switch, then they must be replaced as shown in figure 28.

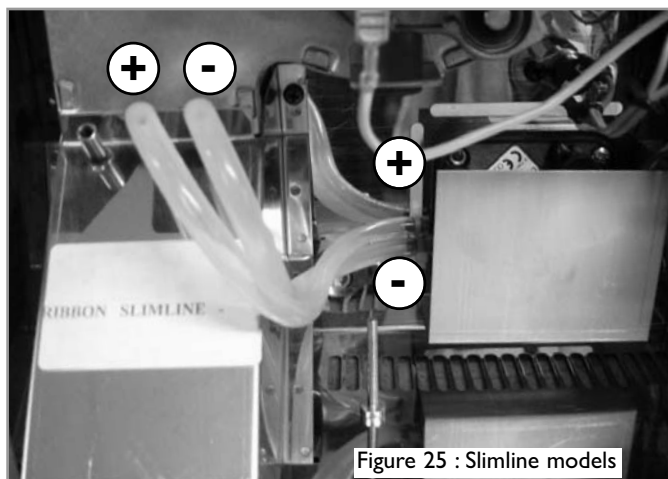
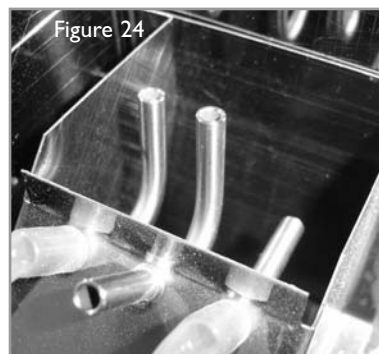
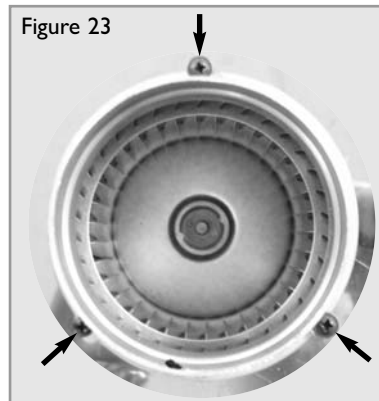


Figure 25 : Slimline models

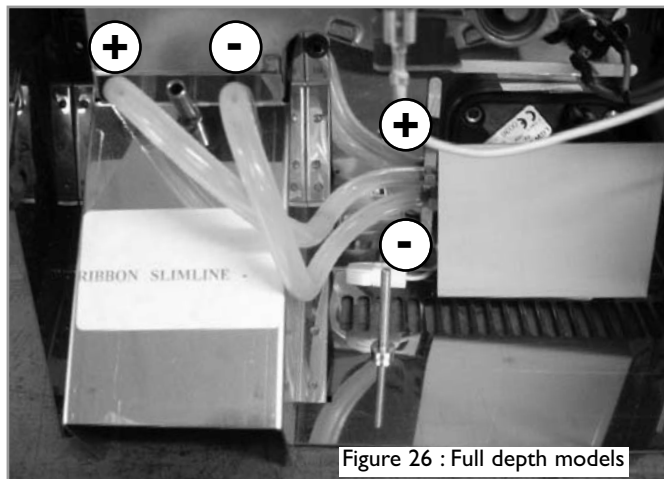


Figure 26 : Full depth models

Re-assemble the remaining components of the terminal box, ensure sealing rings are in position on the firebox spigot and the terminal box spigot. Refit the terminal to the wall. Ensure that no plants etc. obscure the exhaust outlet.

Reconnect the electrical supply and check the operation of the fan. Press the ON switch, the fan should build up speed with the warning light illuminated and then rest at normal operating speed.

The light on the control box should extinguish. The safety solenoid on the burner tray should now open.

Establish a pilot flame but DO NOT light the main burner. Block the fan outlet with a piece of card. The fan should build up speed in an effort to clear the 'obstruction', when this fails the pilot will be extinguished and the fan cut out. When you are sure the operation is correct, refit the terminal cover and wire cage.

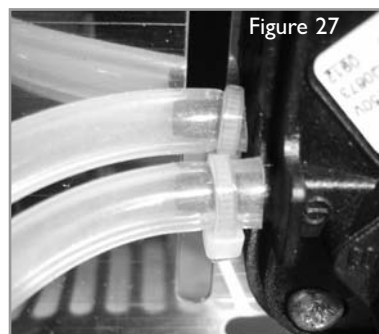


Figure 27

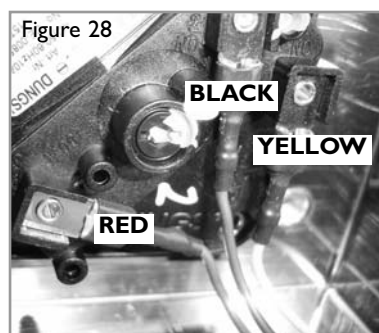


Figure 28

## 15.4 REMOVAL OF THE CONTROL BOX

GB IE

Disconnect the electrical supply and isolate the gas supply. Remove the burner tray as previously described in the relevant section. Remove the two securing screws and lift away the control box heatshield. Slide the control box to the left off its mounting bracket, and remove the multiway connector from the rear.

Replacement is reverse of removal, taking care to ensure the box is mounted securely and each individual connector pin makes good contact with the control box pin.

## 16.0 TROUBLESHOOTING GUIDE

Please note: Repair work to electrical appliances should only be carried out by a suitably qualified (qualified to City & Guilds 2392 [test and inspection] and City & Guilds 2382 [IEE 17th edition] for example) person in accordance with local and national safety regulations.

**WARNING : Repairs and other work by unqualified persons could be dangerous.**

Fault/Problem	Cause/Remedy
Fan fails to start and no neon indicator light on the control box illuminates.	There is no power to the control box Check power at mains supply, check fuses Check wall switch is turned ON Check all plugs, connectors and continuity of wiring from mains supply to control box (see figure 29 terminals 9 & 10). If mains power is definitely present at the control box but neon indicator light does not light AT ALL, even momentarily, then replace the control box.
Fan fails to start and neon indicator light remains illuminated indefinitely without holding the 'on' button in (neon indicator only extinguishes when you press the 'off' button).	Check all plugs, connectors and continuity of wiring from terminals 6 & 8 on the control box (see figure 29) to terminals of the motor coil on the fan. If this is all OK, check continuity across fan motor terminals, if OK, switch mains power on and press 'on' button, (indicator light remains illuminated). Check 240V is present at terminal 6 of the control box (see figure 29) and at the live terminal of the fan motor. If fan does not turn, replace fan.
Fan fails to start and neon indicator light is illuminated but only when holding the 'on' button in.	Check all plugs, connectors and continuity of wiring from terminals 1, 2 & 3 on the control box (see figure 29) to the three terminals of the pressure switch. Check the pressure switch terminals are wired correctly (see figure 27). If all OK then replace pressure switch.
Fan starts and neon indicator light is illuminated, but then cycles on and off every 2-3 seconds. Neon indicator light also flashes on and off every 2-3 seconds.	Check fan outlet for obstruction. Ensure silicone sensing pipes and properly fitted to sensing tubes. Check pressure switch feed pipes are free from obstruction. Check all plugs, connector and continuity of wiring from terminal 7 on the control box (see figure 29) to terminals of the motor coil on the fan. If not OK check resistance across large resistor in fan box. Should be $220 \Omega \pm 10\%$ for full depth models and $230 \Omega \pm 10\%$ for slimline models. If not, replace resistor. If this is all OK, Check 240V is present (cycling every 2-3 seconds) at Pin 7. If not replace control box.
Fan starts and neon indicator extinguishes, fan continues to run in high setting but solenoid does not open.	Under normal conditions the fan should only run for a few moments at high speed before the pressure switch detects air-flow, dropping the fan down to normal speed. Check all plugs, connector and continuity of wiring from terminal 2 on the control box (see figure 29) and the middle terminal of the pressure switch.
Fan starts and neon indicator light is illuminated, but then cycles from high to low every few seconds.	Check fan outlet and flue pipe for obstruction. Ensure silicone sensing pipes and properly fitted to sensing tubes and pressure switch. Check pressure switch feed pipes are free from obstruction. Check all plugs, connector and continuity of wiring.
Fan cycles high to low on windy days.	This is quite normal on windy days. In exposed areas a small deflector plate may be fitted to the terminal guard cage to reduce the effects of prevailing winds.
Fan runs in correct sequence but will not pass spillage tests.	Check test conforms to manufacturers instructions. Check for blockages or leaks in flue or fan outlet. Check gas type and pressure are correct for appliance. Check for adequate ventilation or the effect of extractor fans.



Fault/Problem	Cause/Remedy
Fan runs but pilot flame will not hold when control knob is released.	Loose thermocouple connection in rear of gas valve. Check pilot flame is contacting tip of thermocouple correctly.
Pilot will not light.	Check gas is turned ON and all pipes are purged of air. Check for spark between pilot body and electrode. Check spark gap is correct to specification. Check the HT lead is connected to pilot body. Check gas line and filter for blockages. Check to see if pilot can be lit with match or taper whilst depressing control knob. Safety solenoid may not be opening. Listen for click after starting fan.
Pilot shrinks when fire is turned to high.	Sign of insufficient gas pressure causing pilot starvation. Check appliance pressure at test point. Ensure restrictor elbow is fully open. Suspect undersized or partially blocked supply pipes. Check none of the fittings are causing restriction. Excess solder and flux can obstruct pipes.
Fan or fire cuts off when getting hot.	Most likely the thermal trip in the fan terminal box is being caused to operate. The fan terminal box needs to be properly insulated against any 'leakage' of heat back from the appliance firebox. Use Rockwool to ensure the fan box is well insulated. Check for pilot shrinkage due to low gas pressure. Observe pilot flame for signs of disturbance.

## Technical description - modes of operation

The following information may be of use to engineers attempting to diagnose a fault.

Initially with the unit in its off state, the gas valve relay contacts are open circuit and the fan is off.

To activate the unit the user depresses the on switch. At this point the air pressure switch (APS) is checked. If this indicates that fan pressure is already present then no further action will occur and when the user releases the on switch the unit will be in its off state. The neon indicator will light to show that air flow is not established and so the user should not attempt ignition yet. This is a convenience rather than a safety feature.

If the APS indicates no air flow then the fan will be switched on at its high rate. Once the unit is in this state it will then wait until the APS indicates air flow.

Once air pressure has been established, the fan will be switched to its low rate. After a delay the gas valve relay will be activated. This allows current from a source, external to the unit, to activate the solenoid valve so that gas can flow. The neon is no longer lit to indicate this to the user. Manual ignition can now take place. The delay is nominally 3.5 seconds, maximum 8.0 seconds.

If during running the APS signals air flow failure then the unit will switch the fan back to its high rate. If the APS does not signal renewed air flow within the hold time then the unit will switch off. The hold time is nominally 6.0 seconds, up to a maximum of 14.0 seconds. If air flow is re-established then operation will continue as per the previous paragraph.

Once in its off state again, the gas valve contacts are opened to deactivate the solenoid and the fan switched off. Re-ignition can not then take place without manual intervention, the operating sequence needs to be started from the beginning, as above.

At any time the user may press the off switch. This causes the unit to deactivate the gas valve relay, as above and switch off.

Except as noted above, the maximum delay between any action occurring and the unit responding is 700 milliseconds.

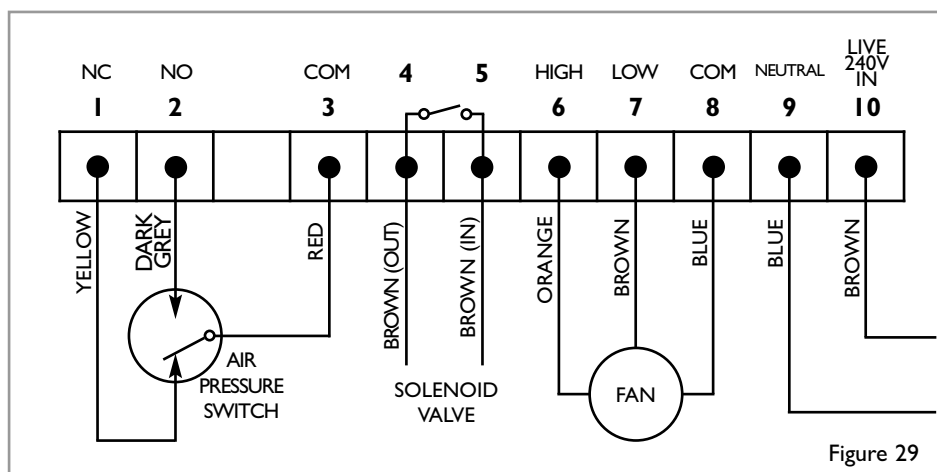


Figure 29

Pin terminal layout - control box. Note this diagram is a view on the rear of the control box (i.e. terminal side).

Section	Content	Page No
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2.0	Clearances to Combustibles	1
3.0	Ventilation	2
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6.0	Fuel Bed Layout - Full Depth Models	2
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## 1.0 IMPORTANT NOTES

- The installation and Servicing of this fire **MUST** only be carried out by a competent person in accordance with local Codes and/or Regulations, Building Regulations and the manufacturer's instructions. Failure to comply with these could lead to prosecution and invalidate the appliance warranty. In the event of gas leakage from the appliance, the gas supply must be turned off at the nearest isolating valve. This appliance is only suitable for the gas type for which it is supplied.
- Keep a note of the installer's name and address, the original purchase receipt and the date of installation. Failure to produce this information may invalidate the warranty. The appliance should be serviced regularly to ensure continued safe operation. See the servicing section for further reference.
- Parts of this appliance become naturally hot during use. It is recommended that a suitable fireguard is used, especially where young children, pets, the elderly or infirm are concerned. The manufacturer of this appliance considers all surfaces as working surfaces with the exception of the control knob and control panel.
- It is recommended that a suitable fire guard conforming to BS 8423 : 2002 is used, especially where young children, the elderly, or infirm are concerned.
- The appliance should be serviced regularly to ensure continued safe operation. Frequency of service will depend on use, but **MUST** be carried out at least once annually.
- Combustible items, such as flooring and furniture and soft wall coverings (such as blown vinyl or embossed paper), low temperature surrounds etc may discolour if fitted too close to the fire. See relevant section for further details on clearances to combustibles. No combustible materials or flooring should protrude onto the hearth.
- This appliance incorporates a combustion monitoring system (ODS).
- **DO NOT** burn any foreign material on this fire, the coals must be of the correct type and laid out in accordance with the relevant section of these instructions. Failure to do so could create a hazard or lead to sooting.
- The fire is only suitable for use with the gas type for which it is supplied.
- This appliance is fitted with a flue blockage safety device which will shut down the fire if abnormal flue conditions occur. It is **NOT** a substitute for an independently mounted Carbon Monoxide detector.
- This fire is supplied with a particular style of firefront. Use of the firefront will ensure an adequate airflow under the firebed for the correct functioning of this appliance. Use **ONLY** the firefront supplied with the appliance. Use of any other firefront could be dangerous.

## 2.0 CLEARANCES TO COMBUSTIBLES

A combustible shelf may be fixed to the wall above the fire, providing that it complies with the dimensions given below.

<b>Maximum depth of shelf</b>	<b>Minimum distance from finished hearth surface to underside of shelf</b>
100mm	745mm
150mm	845mm
203mm	895mm

A non-combustible shelf may be fitted to within 10mm of the top edge of the fireframe.

Combustible materials, such as wood, may be fitted to within 100mm of either side of the frame of the appliance, providing the forward projection does not exceed 100mm.

Any combustible side walls must be at least 500mm to the side of the radiant heat source.

As with all heating appliances, any decorations, soft furnishings, and wall coverings (i.e. flock, blown vinyl and embossed paper) positioned too close to the appliance may discolour or scorch.

No purpose provided ventilation is normally required for this appliance. The requirements of other appliances operating in the same space or room, and the results of a spillage test must be taken into consideration when assessing ventilation requirements, this will have been carried out by your registered installer.

For Republic of Ireland, ventilation may be required, see IS 813, ICP3, IS 327, and any other rules in force.

**WARNING :Ventilation openings (where fitted) must never be blocked or restricted in any way.**

## 4.0 OPERATING THE APPLIANCE

Turn on the power supply and momentarily press the ON switch on the control box located to the right of the control knob. The fan should operate with the warning light illuminated. Almost immediately the fan will slow down to operating speed and a click may be heard as the safety solenoid opens allowing gas to the burner unit. The warning light on the control box should extinguish.

The pilot is visible through the left hand side of ceramic fuel matrix. When cold, the coals or pebbles may be rotated for good viewing. The fire features a 'twin spark' ignition system to aid lighting. Push the control knob in fully and turn anti-clockwise through both of the SPARK positions, keeping fully depressed, hold there for a few seconds. If the fire has not been used for some time, hold the knob in this position for longer, to allow any air in the pipes to be purged.

Continue turning anti-clockwise through the spark clicks to the nine o'clock position, ensuring the pilot has lit. If not, return the knob clockwise, and repeat.

When the pilot lights after one of the two sparks, keep the knob depressed in the nine o'clock position for approximately ten seconds. Now release the knob and the pilot should stay alight. If the pilot is extinguished during use, wait three minutes before repeating the ignition procedure.

To achieve the HIGH setting, push the control knob in slightly and continue turning anti-clockwise to the high position. The main burner should light after a few seconds. To decrease the setting to LOW, push the knob in slightly and turn the control knob clockwise to the low setting. To turn to the pilot only position from the HIGH or LOW positions, press the control knob in, and return to the nine o'clock position and release. To turn the fire OFF, keep the knob pressed in, return to the off position and release.

Press the OFF button on the control box to switch off the fan.

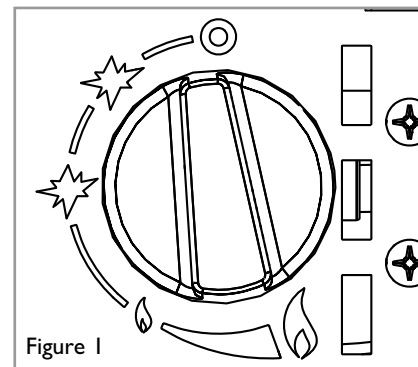


Figure 1

## 5.0 FLUE SPILLAGE MONITORING SYSTEM

This fire is fitted with a flue spillage safety device (ODS). If the fire shuts down during use for no apparent reason then several reasons may be suspected. If a door or window has been opened creating a draught, then pilot disturbance could be the problem, and removal of the draught should resolve this. The fire can then be re-lit in accordance with the previous section. A sealing grommet may have been omitted when the fire was installed, and the original installer should be called to check this, the gas pressure and pipework.

If pilot disturbance is not the cause, then the ODS safety system may be in operation. Switch the appliance OFF, call in your installer to check any ventilation and carry out any remedial work required. DO NOT allow the appliance to be used until the installation is passed as safe.

## 6.0 FUEL BED LAYOUT - FULL DEPTH MODELS

### Full depth coal effect models

1. Position the combustion matrix onto the burner tray as shown in figure 2. The front edge of the matrix should sit snugly behind the back edge of the burner rails as shown in figure 3. Do not fit the matrix on top of the burner rails.



Figure 2

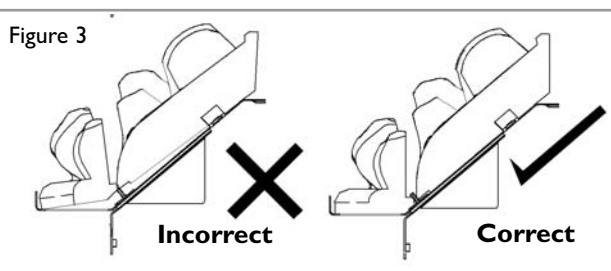
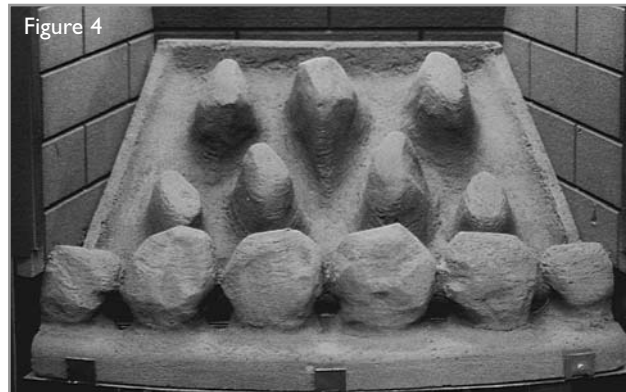
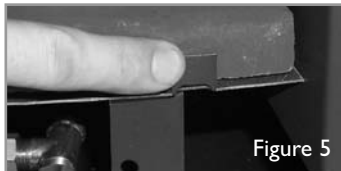


Figure 3

2. Position the front coal strip as shown in figure 4. The rear edge of the front coal strip should fit in front of the burner rail. Again, do not place on top of the burner rails. When the front coal is in position bend up the three metal tags at the front of the tray to retain as shown in figure 5.



3. Coals. All of the coals are the same. Take five coals and place them as shown in figure 6. Care should be taken to ensure that the coals bridge the gap between the front coal and the four coal supports at the front of the matrix. Care should also be taken not to push the coals right down between the coal supports, as this can detract from the flame picture when the appliance is running.



4. Take five more moulded coals and position as shown in figure 7 to form the 'second row' of the fuel effect. The coals may be rotated as desired to fit into the gaps between the coal supports in order to create a random, realistic effect. Again, remember not to push the coals down too far into the valleys between the coal supports as this can have a detrimental effect to the flame picture.



5. Take another four coals and place behind the second row of coals as shown in figure 8, in order to complete the third row. The coals may be orientated as desired to achieve a realistic effect. Keep the spacing between the coals even and uniform. The two coals at the ends of the row may be placed rearwards, towards the back corners of the fuel matrix.



6. Finally, take the two remaining coals and place at the back of the fuel matrix, in the centre as shown in figure 9. Adding these coals should complete the appearance of the fuel bed giving an even distribution of equally spaced coals.

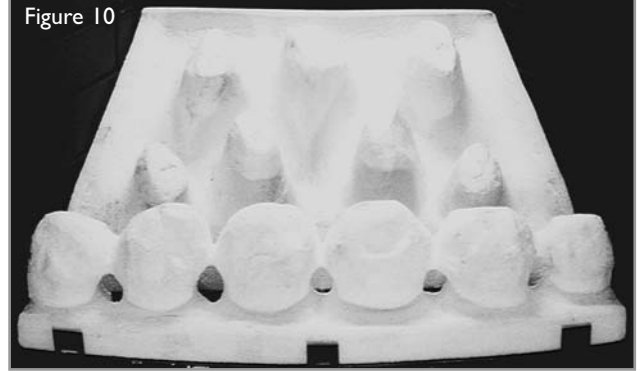


**IMPORTANT :** The fire is designed to operate correctly with the coals supplied when assembled according to the instructions. Never add to the sixteen coals, or change them for a different type. Never throw rubbish or other matter onto the coal bed.

**Full depth pebble effect models**

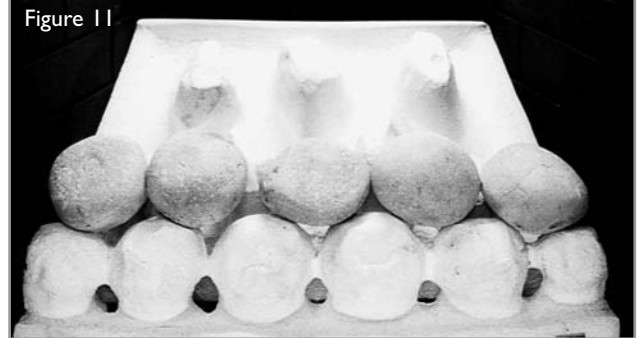
1. Refer back to page 2 section 6.0 of these user instructions - Fuel bed layout (coal effect option) and follow steps 1 and 2. The front strip and fuel effect matrix used for pebble effect versions are of the same design as coal effect versions, but have a different surface finish.

Figure 10



2. Pebbles. All of these pebbles are the same. Take five pebbles and place them as shown in figure 11. Care should be taken to ensure that the pebbles bridge the gap between the front strip and the four supports at the front of the matrix. Care should also be taken not to push the pebbles right down between the supports, as this can affect the flame picture when the appliance is running.

Figure 11



3. Take five more ceramic pebbles and position as shown in figure 12 to form the 'second row' of the fuel effect. The pebbles may be rotated as desired to fit into the gaps between the supports in order to create a random, realistic effect. Again, remember not to push the pebbles down too far into the valleys between the supports as this can have a detrimental effect to the flame picture.

Figure 12



4. Now take another two pebbles and place behind the second row of pebbles, next to each other in the centre of the fuel bed as shown in figure 13. The pebbles may be orientated as desired to achieve a realistic effect. Keep the spacing between the pebbles even and uniform.

Figure 13



5. Finally, take the four remaining large pebbles and place at the back of the fuel matrix as shown in figure 14. The pebbles may be orientated as desired in order to give a realistic effect. Avoid pushing the pebbles down between the supports. The fuel bed layout is now complete.

Figure 14



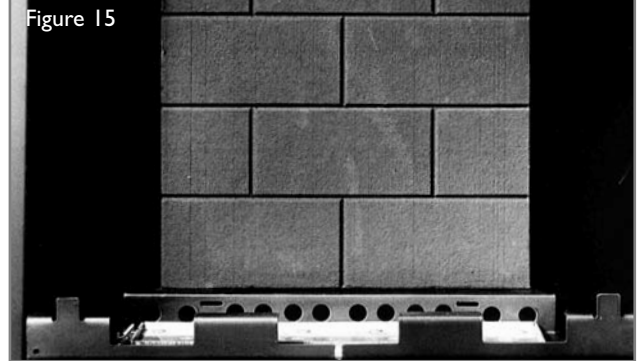
**IMPORTANT :The fire is designed to operate correctly with the pebbles supplied when assembled according to the instructions. Never add to the sixteen pebbles, or change them for a different type. Never throw rubbish or other matter onto the fuel bed.**

Note : Due to the light colour of the pebbles, some discolouration/sooting is to be expected during normal use.

### Slimline coal effect models

This fire is supplied with 11 ceramic coals. The coals may vary slightly in size, shape, in order to allow a realistic layout.

1. Firstly place the brick panel against the rear of the firebox as shown in figure 15.



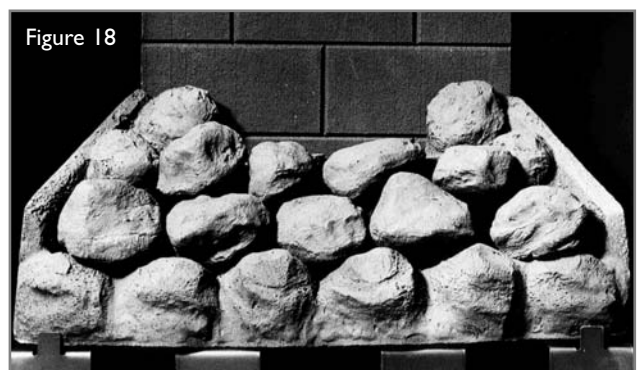
2. Place the ceramic combustion matrix onto the burner as shown in figure 16.



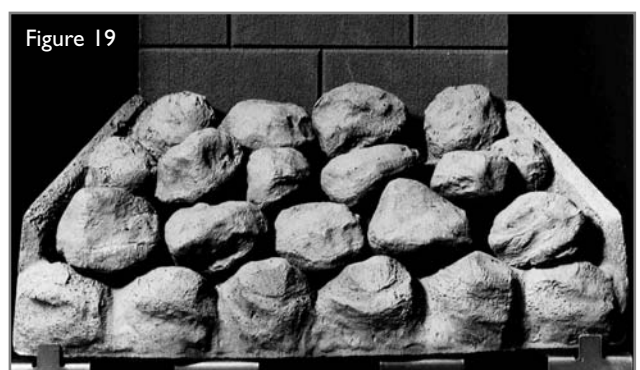
3. Place the front row of five coals on to the matrix as shown in figure 17. Ensure the coals are firmly against the side cheeks as shown in the photograph. If necessary, pull the coals forward slightly to ensure their rear edges do not overhang the flame ports. The edges of the coals **MUST NOT** be allowed to enter the flame ports.



4. Place the middle row of four coals onto the supports in the matrix, over the top of the holes as shown in figure 18. Ensure the coals are not turned sideways, such that they actually enter the holes.



5. Finally, place the rear row of two coals as shown in figure 19. Note: The coals must not be crammed together, or inserted into the holes in the matrix. A well laid out, generously spaced coal layout will give the best results.



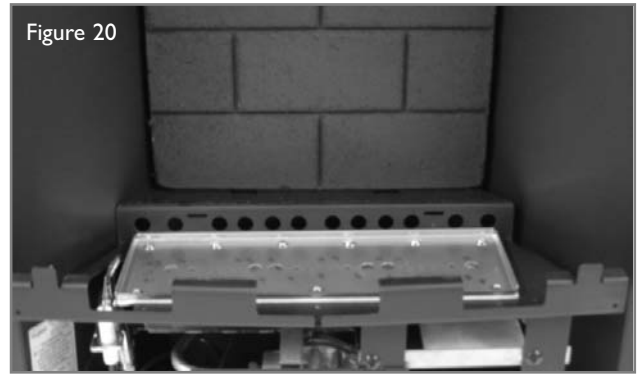
**IMPORTANT :** The fire is designed to operate correctly with the coals supplied when assembled according to the instructions. Never add to the eleven coals, or change them for a different type. Never throw rubbish or other matter onto the fuel bed.

## 6.1 FUEL BED LAYOUT - SLIMLINE MODELS CONTINUED

GB IE

This fire is supplied with 15 ceramic pebbles. The pebbles may vary slightly in size, shape and colour, in order to allow a realistic layout.

1. Place the brick panel against the rear of the firebox as shown in figure 20.



2. Place the ceramic combustion matrix onto the burner and the ceramic side cheeks onto the matrix as shown in figure 21.



3. Place the front row of six pebbles on to the matrix as shown in figure 22. Ensure the pebbles are firmly against the side cheeks as shown in the photograph. If necessary, pull the pebbles forward slightly to ensure their rear edges do not overhang the flame ports. The edges of the pebbles **MUST NOT** be allowed to enter the flame ports.



4. Place the middle row of four pebbles onto the supports in the matrix, over the top of the holes as shown in figure 23. Ensure the pebbles are not turned sideways, such that they actually enter the holes.



5. Place the rear row of five pebbles, making sure that the flat sides are firmly against the brick panel and side cheeks as shown. The pebbles must not be crammed together, or inserted into the holes in the matrix. A well laid out, generously spaced pebble layout will give the best results.



**IMPORTANT :** The fire is designed to operate correctly with the pebbles supplied when assembled according to the instructions. Never add to the fifteen pebbles, or change them for a different type. Never throw rubbish or other matter onto the fuel bed.

Note : Due to the light colour of the pebbles, some discolouration/sooting is to be expected during normal use.

## 7.0 CLEANING

GB IE

Before carrying out any of the following operations, ensure that the fire is OFF and completely cold.

**FIREFRAME** -The appliance is supplied with a decorative frame in a variety of finishes. A wipe with a dry cloth is normally sufficient, but on stains it is permissible to use a damp cloth with a mild household cleaner, followed by a wipe with a dry cloth. DO NOT use abrasive cleaners as these may damage the finish. To re-assemble ensure the magnets are placed on the steel backing pieces, and re-fit to the firebox. Do not use a damp cloth to clean cast iron frames (3081 and 3091 models) as this can cause the frames to rust.

**IMPORTANT : Due to the possibility of sharp edges, care should be taken when cleaning the three-piece frame components. The use of protective gloves is recommended.**

**FIREFRONT** - Any dust accumulating in the firefront may be removed using a vacuum cleaner or dry cloth. Heavy stains may be removed by using a damp cloth and mild household detergent. Brass parts of the firefront may be cleaned using a suitable brass cleaner. Replace the front centrally against the fire after cleaning. Do not use a damp cloth to clean cast iron fronts (3080 and 3091 models) as this can cause the fronts to rust.

**PAINTED AREAS** - These can be cleaned using a dry cloth.

**COALS AND CERAMICS** - Refer to page 2 section 6.0 of these user instructions for the correct. Do not create dust from the coals. Clean gently in the open air. Replace components with original spares only as necessary.

## 8.0 LIST OF REPLACEMENT PARTS

**Slimline Powerflue Models**

Item	Part number
Burner assembly - complete	TRAY115
Terminal box assy. - complete	FAN001
Flue pipe	F720085
Pressure switch	F930154
Control box	F930130
Fan	F930153
Resistor	F930015
Thermal trip switch	F930125
Silicone sensing tube	F700065
Main gas valve	F730085
Solenoid valve	F730017
ODS	F730057
Injector	F730062
Ceramic coal matrix	F780034
Ceramic pebble matrix	F780035
Pack of 11 Coals	F550059
Pack of 15 pebbles	F550057
Ceramic side cheeks (pair)	F550208
Ceramic rear tile	F790005
Wiring loom	F930137

**Full Depth Powerflue Models**

Item	Part number
Burner assembly - complete	TRAY112
Terminal box assy. - complete	FAN002
Flue pipe	F720085
Pressure switch	F930154
Control box	F930130
Fan	F930153
Resistor	F930016
Thermal trip switch	F930125
Silicone sensing tube	F700065
Main gas valve	F730085
Solenoid valve	F730017
ODS	F730006
Injector	F730089
Ceramic coal matrix	F780007
Ceramic pebble matrix	F780016
Pack of 16 Coals	F550038
Pack of 16 pebbles	F550050
Ceramic tile set	F550049
Wiring loom	F930137



**GB IE**

## 10.0 SERVICE HISTORY

Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local authority or retailer for recycling advice.

As our policy is one of continuous improvement and development, we hope therefore you will understand we must retain the right to amend details and/or specifications without prior notice.

Note: Gas Safe™ registered operatives are the only class of person considered as competent by the HSE under the Gas Safety (Installation and Use) Regulations 1998.